

What is claimed is:

1. An instrument for extracting foreign bodies from the cavity of a human, wherein the cavity is an auditory canal or endonasal passage of the human, the instrument comprising:

an elongated tubular structure, said tubular structure defining distal and proximal ends and a passageway between the ends,

the distal end portion being generally frusto-conically shaped and positionable within the canal or passage, the frusto-conical end portion including an enveloping lip sized to envelop and be engaged by a foreign body drawn therewithin, and

the proximal end being removably connectible to a source of negative pressure, a lowering of the pressure in the passageway operating to suction and captivate the foreign particle into the distal end, and

a valve in operable relation with the passageway for adjusting the amount of air that is drawn between the distal and proximal ends of the tubular structure.

2. The instrument as claimed in Claim 1, wherein

said valve includes an inlet and an outlet, and

said tubular structure includes first and second portions, said first portion including a rearward end and said distal end, said rearward end being connectible to the inlet of said valve, and said second portion includes a forward

end and said proximal end, said forward end being connectible to the outlet of said valve.

3. The instrument as claimed in Claim 2, further wherein said first portion is curvilinear and the rearward and distal ends thereof are angularly offset and disposed at an angle Θ relative to one another.

4. The instrument as claimed in Claim 3, wherein the angle Θ is about 100° to about 150°.

5. The instrument as claimed in Claim 3, wherein the angle Θ is about 130° to about 140°.

6. The instrument as claimed in Claim 3, wherein said valve includes a valve body having said inlet and outlet, a passageway extending between said inlet and outlet and connecting the passages in said first and second portions, and a valve stem having a passageway for varying the amount of flow permitted through the passageway of said valve body and passages of said tube structure.

7. The instrument as claimed in Claim 6, wherein said valve stem is mounted for rotation relative to the valve body and positions the passageway thereof in the passageway of said valve body, wherein rotation of the stem causes the passageway in said stem to move into and out of register with the valve passageway and change the amount of air that is permitted to drawn into and through the tubular structure.

8. The instrument as claimed in Claim 1, wherein said enveloping lip is removably mounted to said distal end.

9. The instrument as claimed in Claim 1, wherein said enveloping lip is integrally formed with the distal end of the first portion.

10. The instrument as claimed in Claim 9, wherein said enveloping lip and first portion are formed from a non-toxic material, said lip is of a flexible material, and said first portion is of a hard material.

11. The instrument as claimed in Claim 10, wherein said first portion includes a central body portion between said distal and rearward ends, and the cross-section of said first portion expands outwardly in extending in opposite axial directions from said central body portion towards said distal and proximal ends, and an exterior section of the second portion is provided with convolutions to enable easy and secure gripping.

12. The instrument as claimed in Claim 1, further comprising a magnifying lens, the lens being affixed to the first portion to enable the user to see within the cavity and ensure that the lip envelops the foreign object.

13. Apparatus for extracting a foreign body from a cavity of a human, wherein the cavity is an auditory canal or an intranasal passage, the apparatus comprising a hollow generally cylindrical suction tube forming a suction passageway, the suction tube having a distal end that is insertable within the cavity and forms an inlet to the passageway, the distal end being frusto-conically shaped and adapted to be fitted in enclosing relation about the foreign object, a

proximal end that forms an outlet from the passageway and is connectible to a source of negative pressure whereby to draw the foreign body into the distal end of the suction tube, and a closure valve located in the passageway and movable between first and second positions to prevent and permit flow through the suction tube.

14. The apparatus as claimed in Claim 13, further comprising a magnifying lens, the lens being affixed to the suction tube to enable the user to see within the cavity and ensure that the distal end encloses the foreign object.

15. The apparatus as claimed in Claim 13, wherein a forward end portion of the suction tube is curvilinear, the proximal end is connectible to the source of suction, and the closure valve is integrally formed at the proximal end.

16. The apparatus as claimed in Claim 13, wherein said suction tube includes first and second tube portions, the first portion being curvilinear and the distal end thereof being insertable in the cavity, the second portion being axially extending and directly connectible to the source of suction, and the closure valve being disposed between the first and second tube portions.

17. The apparatus as claimed in Claim 13 wherein the distal end comprises an enveloping lip of a flexible non-toxic material, and the tube is comprised of a generally rigid non-toxic material.

18. The apparatus as claimed in Claim 17, wherein the lip is removably attached to the distal end.

19. The apparatus as claimed in Claim 17, wherein the lip is integrally formed with the distal end.

20. An extraction instrument for extracting by suction a foreign object from the nasal cavity or ear canal of a human, the instrument comprising:

a curvilinear first tube element, the tube element being generally circular in cross-section and having a forward end, a rearward end, and a central body portion, the forward end being frusto-conically shaped and greater in diameter than the diameter of said central body portion, the forward end portion forming an insertion tip sized to envelop and capture a foreign object to be extracted from the ear canal or nasal cavity of a human, and the insertion end being angularly offset relative to the rearward end,

said insertion tip and said tube element being formed from a non-toxic material, wherein said tip is of a flexible material and said tube element is of a rigid material,

a second tube element, the element having a rearward end that is connectible to a source of suction and a forward end,

means for controlling and varying the pressure and suction force produced in the tube elements, the means for controlling and varying being interposed between and connected to the rearward and forward ends, respectively, of the first and second tube elements, and

a magnifying glass connected to the first tube element to enable a user to see within the cavity or canal and ensure that the insertion tip seats in enveloping relation about the foreign object.